

**Notice of Allowability**

Application No.

10/766,040

Examiner

Joshua L. Pritchett

Applicant(s)

TSUBOI ET AL.

Art Unit

2872

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed May 25, 2006.
2. ☒ The allowed claim(s) is/are 19-29.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

This action is in response to Amendment filed May 25, 2006. Claims 19 and 29 have been amended as requested by the applicant.

#### ***Response to Arguments***

Applicant's arguments, see Amendment, filed May 25, 2006, with respect to claim 19 and 29 have been fully considered and are persuasive. The rejection of claims 19 and 29 has been withdrawn. The applicant amended claims 19 and 29 to clarify that the first portion (frame body) and the second portion (electrode base) were upper and lower elements of a single inner frame each of the upper and lower elements having separate torsion bars connecting to corresponding portions of the outer frame.

#### ***Allowable Subject Matter***

Claims 19-29 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 19 and 29, the prior art of record fails to teach or suggest a micromirror unit comprising an inner frame including an upper first portion (or frame body in claim 19) and a lower second portion (or electrode base in claim 19) and an insulating layer sandwiched between

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the first and second portion; an outer frame surrounding the inner frame including an upper first portion (or frame member in claim 19) and a lower second portion (or auxiliary portion in claim 19) and an insulating layer between the first and second portion; a mirror forming based with a mirror surface surrounded by the inner frame; an inner torsion connector between the first portion of the inner frame and the mirror forming base; and an outer torsion connector which connects the inner frame to the outer frame and defines an axis about the inner frame and the mirror forming based are rotated relative to the outer frame, the outer torsion connector having a width measured in a direction which is parallel to the mirror surface and perpendicular to the axis, wherein the width of the outer torsion connector is relatively great at a connecting portion to the inner frame and becomes gradually smaller from the inner frame toward the outer frame and wherein the outer torsion connector comprises a plurality of torsion bars connected at a same side of the inner frame, at least one of the torsion bars connecting the first portion of the inner frame to the first portion of the outer frame to provide a first electrical conducting path, at least another of the torsion bars connecting the second portion of the inner frame to the second portion of the outer frame to provide a second electrical conducting path which is electrically separate from the first electrical conducting path.

The remaining claims depend from claim 19 and are allowable for the same reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318.

The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLP 

  
**DREW A. DUNN**  
**SUPERVISORY PATENT EXAMINER**